

Installation.

How we decided to get the bells.

A parishioner named Ted Tavender, had a great fondness for the sound of a peel of English bells. When plans were underway to extend the church in the early 1950's, he promoted the ideas of a bell tower. Others thought this meant installing a Carillon, but Tavender pushed for a peel of real English bells. This was supported by the Rector, Canon Crump. The idea was approved at a Building Committee meeting on January 6th 1954, provided sufficient funds could be raised.

Estimate for manufacturing the bells and recommendations regarding choice of bells.

Estimate from Gillett and Johnston of Croydon, England, dated 25th August 1953, based on the market price of metals ruling at the present date.
Exchange rate: 1 pound Sterling equals \$2.70 Canadian.

We recommend a somewhat light ring of bells (See estimate), which we feel would be most suitable for the tower which you have in mind. We suggest a set of eight bells in the key of "C".

For the supply of a new ring of eight bells, together with fittings, framework.

Supply a new ring of eight bells, having a tenor, (largest), weighing approximately 8 ½ cwt and total weight of set being 39 1/2 Cwt, to be clean, sound castings of an alloy of pure copper and tin, in correct proportions.

Inclusive of suitable inscriptions as required.

Tune the bells accurately on our Perfected 5-Tone harmonic principle. Having the hum-note an octave below the strike note), nominal (octave above), tierce (Third) and quint (fifth) in correct tune with the strike note, and each bell as a whole to be in accurate tune with the remainder of the ring.

Bells cleaned by the Shotblast process.

Attach to each of the eight bells a complete set of new fittings comprising- Cast from headstock: steel gudgeons: main, self-aligning ball bearings in totally enclosed, grease sealed housings: forged wrought iron clapper: independent crown staple; oak wheel: ash stay and slider; rope roller on ball bearings; Hemp bell-rope with worsted salley.

Provide a framework to carry the eight bells of ample strength and robust construction; to be built on sound engineering principles and to consist of massive cast iron "A" type standards fixed on to heavy section rolled steel main girders including all necessary diagonal ties, braces etc.

Provide auxiliary girders immediately beneath the main girders, at right angles to them and bolted together at all points of intersection, so as to form a grillage to distribute the load over all four walls of the tower.

All main and auxiliary girders to be anchored and grouted firmly into the masonry of the tower walls.

Assemble the bells and their fittings complete in the new framework and test thoroughly for correct action before dispatch.

Supply wooden chutes for steadying the bell-ropes through the intermediate chamber. Supply smooth, machined bushes of cast iron at all points where the ropes pass through the new floors.

Apply to all the iron and steelwork of the frame and fittings three coats of best quality paint, well brushed in and treat the woodwork of the fittings thoroughly with "Cuprinol" preservative. Supply a grease gun and set of spanners mounted on a board

Packed and delivered FOB London Docks. Price 2,330 pounds sterling.

Estimates for each bell supplied independently.

Supply Tenor bell and fittings only, with the complete eight bell framework. 825 pounds sterling.

No 7 bell and its fittings. 278 pounds.

No 6 bell and its fittings. 252 pounds.

No 5 bell and its fittings. 243 pounds.

No 4 bell and its fittings. 224 pounds.

No 3 bell and its fittings. 206 pounds.

No 2 bell and its fittings. 194 pounds.

No 1 bell and its fittings. 194 pounds.

Estimate for set of 8 handbells.

We suggest a set of hand-bells, on which your ringers could practice various methods of changes, while they wait for the actual bells. Then they would only have to master the handling of the bells when installed, thus reducing the time until they could produce perfect peals. This method of practice is normally adopted, as it avoids disturbance and annoyance to local residents during preliminary training

Diameters ranging from 3-3/8" to 4-9/16". 35 pounds Sterling. Original estimate on file (Bells)..

Recommendations re construction of the tower.

Requires a strongly built tower to withstand the forces involved. The maximum oscillating force exerted by ringing bells in full swing is approximately four times their weight.

A drawing showing the design of the tower is enclosed.

The tower should be built to handle a total downward dead load of 30-35 tons. The horizontal thrust is roughly half this amount. Half the bells swing in a east-west direction and half in a north-south direction.

The bell chamber.

The louvred window openings in the bell chamber should be well above the level of the bells for the reasons mentioned above. This arrangement not only modulates the sound of the bells in the immediate vicinity of the tower, but increases the range over which they can be heard. The windows, one of

which should be on each of the four sides, should be from 7-8 feet in height and approximately one third of the bell chamber span in width.

Intermediate (Silencing) chamber.

This chamber, located immediately beneath the bell chamber, is essential to modulate the sound of the bells to the required proportions in the ringing chamber. It should be 9-10 feet in height.

Ringling chamber.

Ropes hang from the bell chamber and each ringer is assigned a specific one with its own number. This chamber must be 12 ½-13 ½ feet in height, with suitable ventilation and at least two glazed windows for light.

Floors.

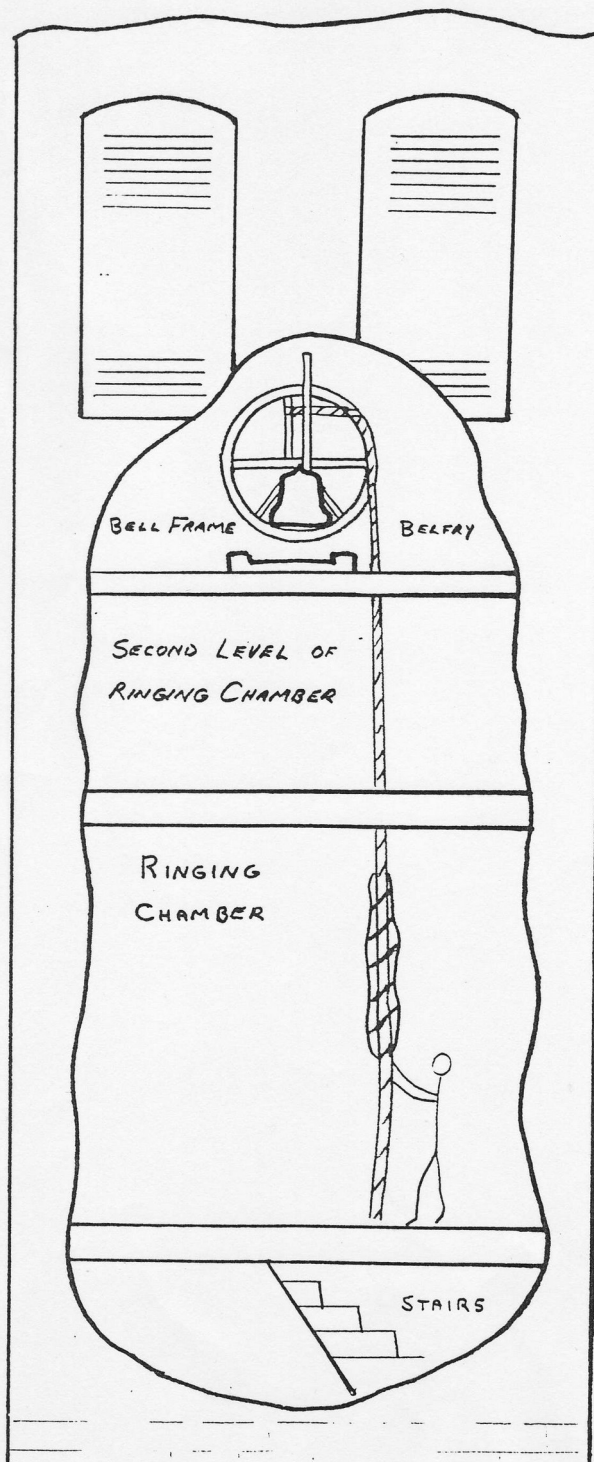
Each floor should have a framed “hoisting trap”, in the centre of the tower, with a minimum clearance of 4 feet square, to facilitate the hoisting of the bells etc. In addition, a framed mantrap should be provided in one corner of the tower, for access to the bells by the steeple keeper in his normal maintenance duties.

Hoisting gantry.

A permanent hoisting gantry should be considered, located near the top of the ringing chamber. This would consist of two steel joists fixed on opposite walls, with a loose steel joist placed above them. This can be moved to enable a direct “lift” to be obtained at any point. This will not only facilitate the initial installation, but save considerable expense, should a bell have to be lifted for repairs, due to damage by lightning or other factors, in the future.

We look forward, with great pleasure, to the time when changes will ring in Calgary, as they do in the old villages in England.

FIGURE 1. CHRIST CHURCH RINGING TOWER (NOT TO SCALE).



Funding for the bells.

A fund for the bells was started around 1953, just before the Laying of the Foundation Stone for the new extension. No one at that time, had any idea how to ring the bells.

Canon Crump, writing in the Bulletin August 24th 1954. (On file), said "Since this parish is so greatly honored by a visit from the spiritual head of our great Worldwide communion, the vestry feel it should be marked by starting a fund to purchase a big new bell, to be hung in the new tower. This would replace the present bell, which is quite inadequate for our needs. Over the next few years, we expect that parishioners will give, as memorials, enough bells to form a complete peal. The first bell would be so toned, that it will blend in with such a peal. Treasurer of the fund was E.R.Tavender.

Special donations.

#8, Tenor: Group of parishioners* donated \$1,832 to commemorate the visit of the Archbishop of Canterbury.

#7 bell : \$1000 donated by Fred Lowes widow.

#6 bell: \$1,000 donated by Ada Tavender (Ted's mother).

#5 bell. \$1,000. Anonmous

#4 bell \$1,000. Anonymous.

#3 Bell. \$1000. Anonymous.

Total \$8,130.

R.S.Munn and his wife donated money for the cost of a bell, but they did not want their name associated with any particular bell.

**Parishioners who donated to the Tenor bell*

Mrs W.G. Gilbert, Lorraine Stanford, C D Williams, D.J. young, Jon Broadberry, Mrs H Gooder,

R.S. Munn, Dr W. Spankie, J.L. Evans, A.T.D Short, S.T Richardson, Evelyn McNeill, E.P Wilson, A.C. Smith, R.E. Waller, W.E. Flimstone, F.C.Manning, F.R. Matthews, M.H.Chapman, W.D. Mackenzie, C.J.Bingley, Ruth McMillan, M.E.Farnsworth, Volney Cope, W.R.Wolley-Dodd, Mrs M.A.Egleston, Mrs E.C.Mcfarlane, Mrs A.W Whitburn, D.P Mcdaniel, Mrs L F mayhood, Mrs W.J.Whitburn, R Stansberry, Mrs W.F.W. Lent, Miss Geneva Lent, Mrs R.C.Fair, Mrs D.E.Batchelor, Dr J.S.Gardner, M.V.Tait, Mrs S.M.Brownlee, Mrs E.M.Funkhouser, Miss Pearl McPherson, V.G.Filteau, S.D.Gould, C.S.Robinson, Mrs W.Gardner, H.G.Nicholson, Mrs F.L.Shouldice, T.D. Forsyth, H.J.Martin, Mrs Dorothy Kidd, J.D.Williams, J.A Askew, Mrs Alice Stewart, Mrs D.J Oliver, M.Joan Oliver, Mrs C.J.Morgan, Mrs C.L.Weckman, Robert Cameron, Jessie Cadman, Mrs John Burns, Mrs Phyllis Dalgleish, Mrs Fred Scott, Lillian Soley.

Mrs J. Stevenson, H.S Young, Lee Cozart, Mrs A.F.Down, H.P.Gregg, R.O.Young, Mrs j. Kenemis, Eric Quint, Mrs J.Willsher, V.W.Abercrombie, Mrs Eric Harvie, J.S.McKechnie, W.D Babeau, S.E.Hills, A.K.Mackie, Dr R.E pow, Stuart Mackie, Mrs R.S Trowsdale, F.W.Hess, Frances Harkness, G.E.A

Macleod, J.R.Hubert, G.Allan Barker, Parcy Hallam, L.Selby (Bill's mother), W.Taylor, R.B.Wing, R.C.Carlisle, R.M.Spankie.

Laying of the foundation stone.

The Archbishop of Canterbury, The Most Reverend Geoffrey Francis Fisher, the world head of the Anglican Communion, laid the foundation stone for the tower on September 4th, 1954. Many dignitaries were in attendance, Including The Bishop of Calgary, George Calvert and the Rector Canon Crump.

Construction of our tower.

The tower was completed in 1954, as part of a major renovation. The Architect was Mr J.A.Cawston.

The Tower has an steel frame, with the structural members encased in concrete pillars.

The tower walls are cinder block, with red brick on the outside. The interior is panelled in the lower public areas. Above that, there are three levels, used by the bell ringers, with bare cinder block walls.

The Ringing chamber is 12.3 cu ft, with a concrete floor and ceiling. A vertical steel ladder leads through a trap door to the second level silencing room, with a 6 ft 9" ceiling, made of wooden slats. Each of the two rooms is framed on all twelve corners by the structural steel framework of the tower. The same ladder continues through a second trap door into the belfry. Here the eight bells are contained in a steel bell frame resting on two eight inch steel I-beams, which attach to the tower. Above the bell frame are the louvred belfry windows, which stand out above the main church buildings.

Dedication of tower

The new extension, which included the tower, was dedicated by Bishop Calvert on Christmas Eve 1954. That was before the bells had arrived.

Manufacturers of the bells.

Gillett and Johnston of Croydon, England, cast bells # six, seven and eight, the three heaviest. They had been founded in 1844 as a clock maker and started bell founding to make chimes in clocks. Then they turned to church bells and carillons.

Bell # one, two, three, four and five were cast at the John Taylor Bell Foundry in Loughborough, England, but tuned at Croydon. The foundry had been controlled by an unbroken succession of Taylors since about 1776 and had been at the same Loughborough location since 1840. It has its own tower and ring of bells.

All the bells (and the headstocks) have “Gillett and Johnston inscribed on them.

Shipment.

Shipment was by ship, via the Panama Canal to Vancouver, then rail to Calgary and finally truck to CC. . They were placed, in their crates on the floor at the back of the church, until they were dedicated. Then they were installed.

Order and arrival dates, the order of shipments.

Three bells arrived in 1955 (#6,7,8), three in 1956 (#’s 3,4,5) and two in 1957 (#s 1,2).

1st shipment. Bells 6,7 and 8, together with the steel frame for all the bells, were ordered in February 1955 and arrived on June 24th 1955.

2nd shipment. Bells 3,4 and 5 were ordered in December 1955, arrived in, installed On July 8th of that year.

3rd shipment. Bells 1 and 2 arrived in August, 1957.

Cost of the Bells, Frame and hand-bells.

First shipment.

Framework for all bells.	\$ 1,390.
#8 bell.	\$ 837.00
#7 bell.	\$ 750.60
#6 bell	\$ 680.40.
Handbells	\$ 94.50
Ocean freight. Estimate	\$ 25.65.
Framework	\$ 74.35
Freight Vancouver/Calgary.	\$ 80.00.
Wharfage etc.	\$ 5.00.
Total	\$ 4,100.00

2nd shipment cost- no record.

3rd shipment total cost 835 Pounds Sterling. (Bill on file dated September 5th 1957).

Dedication of the bells.

Bells 6,7 and 8 were dedicated by the Rector Canon Crump, on June 26th 1955 (Service leaflet on file) and bells 3,4 and 5 in July 1956 (Herald article on file). Bells No 1 and 2, were dedicated by the Right Rev G.R. Calvert, Bishop of Calgary, on August 11th 1957. (Herald article on file).

Dedications was done over the bells, while they were on the floor at the back of the Church, before they were raised into the tower

Installation of the bells.

Soon after their arrival, an English installer, named John Nicholls, from John Nichols of Croydon, installed the frame and the first 3 bells, finishing on Tuesday July 5th 1955.

The remaining bells were installed by Poole Construction. In a letter to Poole construction dated 18th July 1957, Ted Tavender, advised them that "the final two bells would arrive before the end of the month and we would like to have them installed as soon as possible. He asked them to check the "do-nut" in the floor of the bell chamber, where each bell rope passes through the floor. At least in one case-the third bell from the top- there is only a rough-edged hole. Will you kindly fix this and see that all holes are smooth and properly fitted so as to prevent wear on the ropes. " (letter on file).